



BUCKINGHAM & VICTORIAN VINYL DOOR INSTALLATION INSTRUCTIONS

F.J.F. : OCT - DEC, 2008

GENERAL

Door elevations shown in these instructions are as viewed from the outside. (Diagram A)

'X' denotes the active or moving panel(s).

'O' denotes the inactive or fixed panel(s).

'Z' on an OZO door indicates that the active panel slides to the right.

'X' on an OXO door indicates that the active panel slides to the left.

All 2 panel doors between 72" to 84" high are fully reversible. The locking hardware on the operating panel is located at the mid point of the panel unless otherwise requested.

All other doors are handed and are not reversible.

NOTE: If you have purchased a pre-assembled door, we recommend removing the panels before moving the door around the construction site. Rough handling may damage joint assemblies which could result in reduced product performance.

ROUGH OPENING

The rough opening should be made 1/2" wider and 1/2" higher (+/-1/8" each way) than the actual door frame size. (Refer to catalogue for frame sizes.) The sill or base of the opening must be solid, level, and of sufficient width and depth to support the entire door sill in a continuous and uniform manner. It is important that the opening be plumb and square as the door will not perform to its potential if installed into an improperly prepared opening.

MAIN FRAME ASSEMBLY (for K.D. doors)

If you have purchased an assembled door, go to "Frame Installation" step.

The frame consists of 4 main members:



(A) Head track. (B) Sill track. (C) Right hand jamb. (D) Left hand jamb.

Three panel OXO and OZO doors and four panel OXXO doors include an additional astragal member(s).

All main frame members are machined so that they may be assembled in only one way.

Lay out the framing members as shown on Diagram B.

Ensure that the foam gaskets attached at the top and bottom of the jambs are in good condition and replace if they appear torn or defective.

Using the #8 X 2 1/2" screws provided fasten the head and sill to the jambs as shown on Diagram B through the factory drilled holes making sure the screws are drawn tight

If exterior brick mold, nailing fin, sill extensions, or interior jamb and sill extensions are being used, refer to the [appendix?, separate instruction at the end???, T.B.A.] before proceeding with the frame installation.

FRAME INSTALLATION

The main frame is always installed with the sill sloping to the outside.

Apply a heavy bead of good quality caulking along the full width of the sill opening inset 1/2" from the line the sill will be installed to, excluding sill extension if provided, so that the aluminum return leg on the bottom of the sill will embed into the sealant. (See diagram C & D) Insert the main frame into the opening and centre the door frame leaving equal clearance at both jambs.

Installation holes are not provided. It is the responsibility of the installer to drill them. The use of cap plugs is recommended for aesthetic reasons to fill 3/8" diameter holes and to conceal the installation screws. Alternatively, exposed installation screws may be used if permitted by the specifier. All screws must engage the surrounding structure a minimum of 1".

The sill must be installed level and uniformly supported from end to end and from front to back. Use a level, and use solid shims if necessary to compensate for unevenness in the opening. At a minimum, fasten the sill to the surrounding structure at each meeting rail or parting rail.

For the Buckingham door, drill 3/8" diameter clearance holes through the top surface of the sill to allow passage of the screw head and 3/16" diameter clearance holes through the secondary surface and the wood frame to allow passage of the screw shaft as shown on Diagram C.



For the Victorian door, drill 3/8" diameter clearance holes through the top surface of the sill to allow passage of the screw head and 3/16" diameter clearance holes through the secondary surface to allow passage of the screw shaft as shown on Diagram D.

After installing the screws, apply sealant (state type) around the hole and install the cap plug. Wipe clean any excess sealant. It is essential that the plugged holes are waterproof. If possible, anchor the sill to the structure using brackets or angles that do not puncture the top of the sill.

At a minimum, the head must be anchored at each meeting or parting rail. Follow these instructions for anchoring heads of OXO and OXXO doors at the parting rails only. Anchoring of heads at the meeting rails will be done after panel installation during the application of the anti-lift bracket.

For the Buckingham door, drill 3/8" diameter clearance holes through the bottom surface of the head and 1/4" into the wood to allow passage and countersinking of the screw head and 3/16" diameter clearance holes through the remainder of the wood frame to allow passage of the screw shaft as shown on Diagram E.

For the Victorian door, drill 3/8" diameter clearance holes through the bottom surface of the head to allow passage of the screw head and 3/16" diameter clearance holes through the secondary surface to allow passage of the screw shaft as shown on Diagram F.

Use solid shims and ensure that the head is not bowed or twisted by the installation screws. Check for straightness and squareness before proceeding further. After installing the screws, apply sealant (state type) around the hole and install the cap plug. Wipe clean any excess sealant.

The jambs must be fastened within 6" of each corner and at mid height on doors up to 80" high. Additional fastening is required on taller doors.

At this time only the top and bottom screws on the operating side jamb and the mid span screw on the fixed side jamb are to be installed. Other installation screws will be installed during hardware fastening.

Set shims behind frame installation holes to make the main frame plumb and square then temporarily fasten the frame to the surrounding structure. Using a level and measuring diagonally, check that the frame is straight, plumb and square, make adjustments to the shims if necessary, and securely fasten all screws, with the exception of the jamb top and bottom screws on the fixed panel side and the mid span screw on the operating panel side.



NOTE: For installations in high rise buildings or high wind areas, the quantity, size, type, and engagement of the fasteners and the supporting shims must be engineered and is the responsibility of the installation contractor.

INSTALLING THE FIXED PANEL ADAPTOR AND END CAP – 2 PANEL & 4 PANEL DOORS

The fixed panel adaptor is shipped attached to the sill and must be positioned to the fixed panel side by sliding it tight to the fixed jamb following fastening of the frame to the structure. To hold the fixed panel adaptor in place, insert and attach the “Fixed Panel End Cap” against the open end of the fixed panel adaptor as shown on Diagram G. Ensure that the hole and screw securing the “Fixed Panel End Cap” to the sill is caulked and water tight.

Install the 2 ½” long carpet plug on top of the end cap covering the screw and the 1” long carpet plug in front of the end cap between the screen track as shown.

INSTALLING THE FIXED PANEL – 2 PANEL & 4 PANEL DOORS

The fixed panel is supplied with screw covers at the top and bottom of the meeting rail. The plain cut cover is to be located at the bottom of the panel and the notched cover is to be located at the top. Remove and reverse to suit your door handing if necessary. Slide the screw covers away from the top and bottom of the meeting rail before installing the panel into the frame.

Lift the fixed panel into the centre track of the frame head and carefully lower onto the fixed panel adaptor on the sill. Push the fixed panel securely and completely into the jamb as shown on diagrams H & I. The meeting rail with interlocking hook and the wool pile weather stripping should now be in the middle of the door facing inside.

Hook the fixed panel bumper clips onto the fixed panel and into the jamb as shown on Diagrams H & I. Attach the bumper at the top and bottom to the fixed panel into the holes provided using the #8 X 1” screws provided. Insert shims between the frame and opening and attach the bumper through the frame and into the surrounding structure using the #8 X 2 ½” screws provided.

Insert the screw cap plugs and screw covers onto the bumper.

NOTE: The bumper-anchor clips should nest easily into the jamb without forcing and the pre-drilled holes in the bumper clip and fixed panel should align. If not, this indicates that the fixed panel is not fully engaged into the jamb pocket. (refer to dimensions shown on Diagram H) Re-install the fixed panel if necessary.



Tap the screw covers at the top and bottom of the free end of the fixed panel up and down against the head and sill. The plain cut cover at the sill should finish on top of the Fixed Panel End Cap as shown on Diagram J. If it slides downwards beyond the cap, this indicates that the fixed panel is not fully engaged into the jamb. Re-install the fixed panel if necessary.

For 4 panel doors, repeat the above procedure at both ends.

INSTALLING THE FIXED PANELS – 3 PANEL DOORS

For the fixed panel on the side that operating panel is sliding towards, follow the same procedure as with 2 panel doors. The fixed panel adaptor on this side is $\frac{1}{2}$ " shorter than on the opposite side.

For the fixed panel on the side that the operating panel is sliding away from, the fixed panel adaptor is $\frac{1}{2}$ " longer than on the opposite side.

Slide the fixed panel adaptor tight to the jamb. Lift the fixed panel into the centre track of the frame head and carefully lower onto the fixed panel adaptor on sill. Push the fixed panel securely into the jamb. (see diagram H) The wide rail without any hooks or weather stripping should now be towards the centre of the opening.

Attach the OXO mullion astragal to the wide rail of this panel using the three #8 X 2 $\frac{1}{2}$ " screws provided as shown on Diagram K. (NOTE: The mullion astragal is machined to be applied in only one way.) Insert the continuous screw cover onto the inside face of the mullion.

INSTALLING THE OPERATING PANEL

Firstly, depending on the handing or the door, install the rollers into the bottom of the operating panel into the pre-drilled holes provided using the #8 X $\frac{1}{2}$ " screws provided. Ensure that the adjustment screw head on the roller assembly is facing outwards towards the end of the panel.

The operating panel is supplied with screw covers at the top and bottom of the meeting rail. The cover with the rounded notch is to be located at the bottom of the panel and the square notch is to be located at the top. Remove and reverse to suit your door handing if necessary. Slide the screw covers away from the top and bottom of the meeting rail before installing the panel into the frame.

Lift the active panel into the inside track of the frame head and carefully lower the panel onto the roller track of the sill frame as shown on Diagram L.

Using a screw driver, adjust the rollers up or down so that the exterior bottom of the panel is riding $\frac{1}{2}$ " above the sill. See diagram M. Turn the screw clockwise to raise the panel or counter clockwise to lower



the panel as shown on Diagram J. NOTE: We recommend lifting the panel slightly when adjusting the wheels for ease of turning and to ensure against stripping the adjustment mechanism.

Slide the panel in the closing direction to within $\frac{1}{4}$ " of the jamb. Visually, the joint between the panel and the jamb should be uniform from top to bottom. If not, adjust the panel up or down at one corner until the panel aligns to the jamb. If the jamb is bowed, remove the installation screws, adjust the shims, and re-fasten.

Once the panel wheels have been adjusted, tap the screw covers at the top and bottom on the side of the meeting rail up and down towards the head and sill.

For OXXO doors, install and adjust the panels in a similar manner as above aligning the two operating panels to each other. Apply a continuous bead of caulking into the bi-parting astragal "H"- bar and push it on to the vertical rail without the cutout for the operating hardware using the #8 X 1" screws provided as shown in Figure N.

Insert the continuous screw cover into the side of the bi-parting astragal "H"- bar.

For OXO doors, adjust the operating panel and wheels in a similar manner as described above aligning the operating panel to the mullion astragal.

HARDWARE AND KEEPER INSTALLATION

Buckingham and Victorian doors are supplied with Elite Locking Hardware which is shipped packaged separately. Follow the instructions enclosed in the hardware package. Only after the panels have been adjusted as previously noted, attach the operating mechanism, handles, and lock keeper as follows:

Install the lock mechanism into the pre-drilled slot in the side of the operating panel with the adjustment screw to the top and the striker hook facing upwards. Insert the thumb lever into the slot on the inside of the lock mechanism as shown on Diagram O.

Install the interior and exterior pull handles with the screws provided from the inside. Ensure the exterior pull is installed as shown on Diagram O.



To locate the latch keeper on the jamb, open the operating panel, nest the keeper into the opening on the lock mechanism, and engage the thumb turn to hold the keeper within the lock mechanism. Apply a piece of 2 sided tape to the back of the keeper and firmly close the panel into the jamb. Disengage the thumb turn and slide away the operating panel. The latch keeper should be held in the jamb by the 2 sided tape. Mark the keeper location with a pencil and remove the tape.

Install solid shims between the jamb and the opening and attach the keeper to the jamb and into the surrounding structure with two 2 ½" screws as shown on Diagram P.

For OXO and OXXO doors install the locking mechanism and handles as above. Use the 1" screws provided to attach the keeper to the astragal mullion or "H"- bar.

NOTE: Install the screws through the centre of the slots in the keeper to allow for future vertical adjustments if necessary.

ANTI LIFT BLOCK/ MEETING RAIL HEAD PLUG INSTALLATION

After all panels are installed in the frame and with the operating panel in the open position, insert the anti-lift block with the "carpet plug" facing down into the head between the two tracks and slide it horizontally until it is above the fixed panel meeting rail.

Insert shims above the meeting rail ensuring that the head frame is true and not bowed.

Using #8 X 2 ½" screws provided fasten the block through the hole provided, through the head frame, and into the surrounding structure. Close the operating panel and fasten the other end of the block in the same manner from the inside. See Diagram Q.

If installed correctly, it should not be possible to lift the panels out of the door, and the "carpet plug" will close the space between the fixed and operating panels.

SCREEN INSTALLATION – 2 PANEL AND OXO DOORS

Insert the screen in the outside track of the frame head, swing the bottom of the screen towards the sill, then depress the bottom rollers with a flat head screw driver or spatula and snap the rollers over the sill screen track.



Slide the screen in the closing direction to within ¼” of the jamb (or astragal mullion on OXO doors). Visually, the joint between the screen and the jamb should be uniform from top to bottom. See Diagram R. Using a screwdriver adjust the rollers on the bottom of the screen upwards or downwards to align the screen as shown on Diagram S.

Adjust the top rollers just enough to snug the screen in the top track and allow easy rolling.

Install the mortise screen lock using the factory machined holes provided with the striker hook facing upwards as shown on Diagram T. Depending on the hand of the screen, it may be necessary to reverse the handing of the striker hook by removing its retaining screw, reversing the striker, and re-fastening the screw.

With the striker latch in the open position, slide the screen close to the jamb (or astragal mullion on OXO doors), mark the location of the top of the striker in the jamb, and position the keeper within the jamb so that the striker will cleanly engage the keeper. Attach the keeper to the jamb using the self drilling screws provided. Ensure the latch securely holds the screens locked and adjust the keeper up or down as necessary.

SCREEN INSTALLATION – OXXO DOORS

Insert both screens in the outside track of the frame head, swing the bottom of the screens towards the sill, then depress the bottom rollers with a flat head screw driver or spatula and snap the rollers over the sill screen track.

Slide the screens in the closing direction to within ¼” of each other. Visually, the joint between the two screens should be uniform from top to bottom. Using a screwdriver adjust the rollers on the bottom of the screens upwards or downwards to align the screens as shown on Diagram S.

Adjust the top rollers just enough to snug the screen in the top track and allow easy rolling.

There are 2 mortise screen locks supplied with OXXO doors. Using a screwdriver, remove the striker from one of them to create a dummy lock and install this lock to one of the screens as shown on Diagram U. On this screen, attach the screen “H” bar as shown on Diagram xxx using 4 self drilling screws.



On the other screen, install the active mortise screen lock using the factory machined holes provided with the striker hook facing upwards. Depending on the hand of the screen, it may be necessary to reverse the handing of the striker hook by removing its retaining screw, reversing the striker, and re-fastening the screw.

With the striker latch in the open position, slide the screens close to each other, mark the location of the top of the striker in the screen "H"-bar, and position the keeper within the "H"-bar so that the striker will cleanly engage the keeper. Attach the keeper to the "H"-bar using the self drilling screws provided. Ensure the latch securely holds the screens locked and adjust the keeper up or down as necessary.

CAULKING

Use a good quality building sealant that is compatible with the vinyl surfaces of the sliding door and the surrounding structure. It is important that all surfaces to be caulked are free of smut, dust, and grease and are well cleaned with an isopropyl alcohol solution followed by a clean dry wipe. Depending on the sealants being used, a primer may also be necessary. Check the application with your sealant supplier.

CAUTION: If expanding foam insulation is being used to fill the void between the door frame and surrounding structure, we recommend the use of good quality low expanding material only applied by an experienced applicator. The use of high expanding foam can bow and deform framing members resulting in poor performance and difficult operation of the door.

CLEANING

Remove all debris and vacuum all dirt and filings from the sill. Using a mild soap and water solution, clean all vinyl and glass surfaces. Do not use solvents or harsh cleaners as they may damage the finish surfaces.